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Characterization, purification and identification of some Alkaloids in Datura stramonium

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Abstract

This study aimed at investigating the presence of alkaloids and other chemical constituents in Datura stramonium (Saikaran, Jimson weed). All parts of the plant were dried, crushed and then underwent extraction by soxhlet and maceration methods. The solvents used in these methods were normal hexane (nonpolar) and ethanol (polar). Thin Layer Chromatography (TLC) and FTIR techniques were used to analyse the chemical components of jimson weed. The results showed the presence of hyoscyne in all plant parts while atropine in the seeds only. The best separation was found to be when the solvent system was acetone: water: ammonia (90:07:03). Maceration method is the best and cost effective procedure for extraction. (C) All Rights Reserved

Keywords

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1. **Comparative study of phytochemical screening, antioxidant and antimicrobial capacities of fresh and dry leaves crude plant extracts of *Datura metel* L** Times Cited: **26**
 By: Alabri, Tahiya Hilal Ali; Al Musalami, Amira Hamood Salim; Hossain, Mohammad Amzad; et al.
 Journal of King Saud University Science Volume: 26 Issue: 3 Pages: 237-243 Published: JUL 2014
2. Title: [not available] Times Cited: **155**
 By: Cordell, G.
 Introduction to Alkaloids: A Biogenetic Approach Published: 1981
 Publisher: Wiley and Sons, New York
3. **New extraction technique for alkaloids** Times Cited: **14**
 By: Djilani, Abdelouaheb; Legseir, Belgacem; Soulimani, Rachid; et al.
 JOURNAL OF THE BRAZILIAN CHEMICAL SOCIETY Volume: 17 Issue: 3 Pages: 518-520 Published: MAY-JUN 2006
4. **COMPOSITION OF JIMSON WEED (*DATURA-STRAMONIUM*) SEEDS** Times Cited: **74**
 By: FRIEDMAN, M; LEVIN, CE
 JOURNAL OF AGRICULTURAL AND FOOD CHEMISTRY Volume: 37 Issue: 4 Pages: 998-1005 Published: JUL-AUG 1989
5. **Process development for maximum lycopene production from selected fruit waste and its antioxidant and antiradical activity** Times Cited: **2**
 By: Jamal, P.; Akbar, I.; Hashim, Y. Z. H.; et al.
 Journal of Food Processing and Technology Volume: 7 Issue: 4 Pages: 1-7 Published: 2016
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6. **Solanaceae IV: *Atropa belladonna*, Deadly Nightshade** Times Cited: **21**
 By: Lee, M. R.
 JOURNAL OF THE ROYAL COLLEGE OF PHYSICIANS OF EDINBURGH Volume: 37 Issue: 1 Pages: 77-84 Published: 2007
7. **Biochemistry of hemlock (*Conium maculatum* L.) alkaloids and their acute and chronic toxicity in livestock. A review** Times Cited: **44**
 By: Lopez, TA; Cid, MS; Bianchini, ML
 TOXICON Volume: 37 Issue: 6 Pages: 841-865 Published: JUN 1999
8. **GC-MS investigation of tropane alkaloids in *Datura stramonium*** Times Cited: **30**
 By: Philipov, S; Berkov, S
 ZEITSCHRIFT FUR NATURFORSCHUNG C-A JOURNAL OF BIOSCIENCES Volume: 57 Issue: 5-6 Pages: 559-561 Published: MAY-JUN 2002
9. **Myths about spider envenomations and necrotic skin lesions** Times Cited: **6**
 By: Vetter, RS
 LANCET Volume: 364 Issue: 9433 Pages: 484-485 Published: AUG 7 2004
10. Title: [not available] Times Cited: **7**
 By: YUBIN JI
 J CHEM PHARM RES Volume: 6 Pages: 338 Published: 2014

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